

January 9, 1998

TEL:805-498-2111 FAX:805-498-3804 WEB:http://www.semtech.com

## STANDARD RECOVERY, HIGH CURRENT CENTERTAP AND DOUBLER RECTIFIER ASSEMBLIES

## QUICK REFERENCE DATA

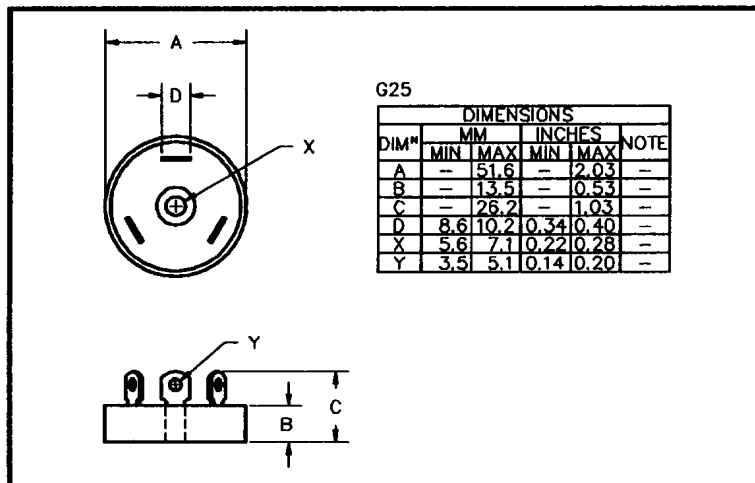
- Low forward voltage drop
- Low reverse leakage current
- Aluminum case
- Low thermal impedance
- High forward surge rating

- $V_R = 50V - 1000V$
- $I_F = 45A$
- $I_R = 3.0\mu A$
- $V_F = 1.0V$

## ABSOLUTE MAXIMUM RATINGS

Device Type	Working Reverse Voltage $V_{RWM}$	Average Rectified Current (@ case temperature)			1 Cycle Surge Current $t_p = 8.3mS$		Repetitive Surge Current
		@ 25°C	@ 55°C	@ 100°C	@ 25°C	@ 100°C	@ 25°C
		Volts	Amps	Amps	Amps	Amps	Amps
SCDAR05	50	↑	↑	↑	↑	↑	↑
SCDAR1	100	↑	↑	↑	↑	↑	↑
SCDAR2	200	↑	↑	↑	↑	↑	↑
SCDAR4	400	22.5	17.5	10.0	375	300	70
SCDAR6	600	↓	↓	↓	↓	↓	↓
SCDAR8	800	↓	↓	↓	↓	↓	↓
SCDAR10	1000	↓	↓	↓	↓	↓	↓
SCNAR05    SCPAR05	50	↑	↑	↑	↑	↑	↑
SCNAR1    SCPAR1	100	↑	↑	↑	↑	↑	↑
SCNAR2    SCPAR2	200	↑	↑	↑	↑	↑	↑
SCNAR4    SCPAR4	400	45.0	35.0	20.0	375	300	70
SCNAR6    SCPAR6	600	↓	↓	↓	↓	↓	↓
SCNAR8    SCPAR8	800	↓	↓	↓	↓	↓	↓
SCNAR10    SCPAR10	1000	↓	↓	↓	↓	↓	↓

## MECHANICAL



Maximum thermal impedance  
 $R_{\theta JC} = 1.5^{\circ}C/W$

Approximate mass = 75g

January 9, 1998

### ELECTRICAL CHARACTERISTICS (ratings apply per leg)

Device Type	Reverse Current @ $V_{RWM}$		Maximum Forward Voltage $V_F$ @ 9.0A @ 25°C	Maximum Reverse Recovery Time <sup>1</sup>
	@ 25 °C	@ 100 °C		
	μA	μA	Volts	μS
SCDAR05 SCDAR1 SCDAR2 SCDAR4 SCDAR6 SCDAR8 SCDAR10	3.0	60	1.0	2.0
SCNAR05 SCPAR05 SCNAR1 SCPAR1 SCNAR2 SCPAR2 SCNAR4 SCPAR4 SCNAR6 SCPAR6 SCNAR8 SCPAR8 SCNAR10 SCPAR10	3.0	60	1.0	

<sup>1</sup> Measured on discrete devices prior to assembly

Operating temperature range -55 °C to +150 °C  
Storage temperature range -55 °C to +150 °C

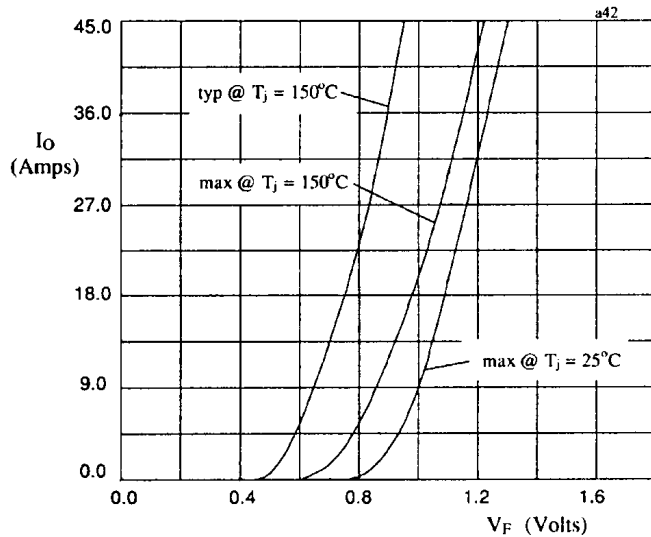


Fig 1. Forward voltage drop against current (per leg)

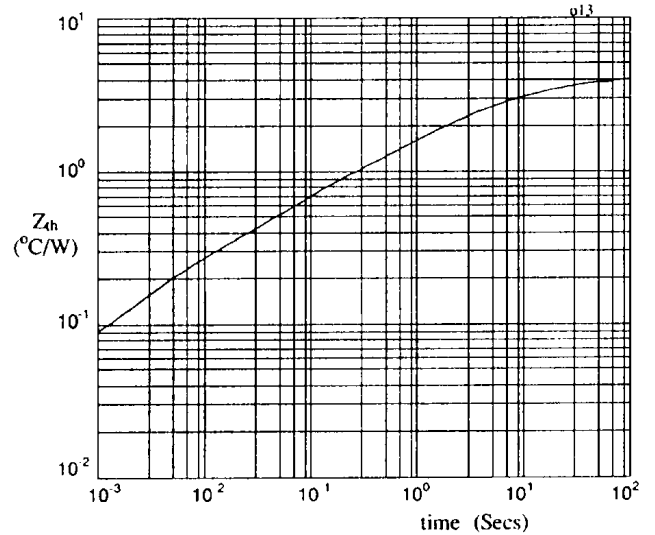


Fig 2. Transient thermal impedance characteristic per leg